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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,229	11/19/2001	Andreas Foltinek	7183	8114

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SHLESINGER, ARKWRIGHT & GARVEY LLP
3000 SOUTH EADS STREET
ARLINGTON, VA 22202

EXAMINER

MITCHELL, JASON D

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 12/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,229	FOLTINEK, ANDREAS	
	Examiner	Art Unit	
	Jason Mitchell	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/02/01</u> <u>2/20/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application claims priority to German application 100 57 575.7-53 filed on 11/20/2000. For priority to be perfected a certified English translation must be submitted.

1. Claims 1-4 are pending in this case.

Specification

2. The disclosure is objected to because of the following informalities: The disclosure does not follow the prescribed format (see items e-g below).

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.

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- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** The term "multi-objective" is not explained in the claims or the specification and its meaning is unclear thereby making the claim indistinct. The limitation "multi-objective" will not be treated in the examination of the claim.

5. **Claim 1 recites the limitations "the application source code" and "the source information suitable for producing this source code" in lines 11 and 11-12 respectively.** There is insufficient antecedent basis for these limitations in the claim. Examiner's best understanding will be used and the claim will be interpreted as generating application source code or the source information suitable for producing this source code.

6. **Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** Claim 1 states that 'at least one of software for visualizing, software for simulating, software for communicating, and documentation must be generated. It is unclear if the limitations of the instant claim should be applied in a case where software for simulation is not generated (i.e. only documentation is created).

7. **Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.** Regarding claim 3, the phrase "such as" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The exemplary limitation "hardware addresses" will not be treated in the examination of the claim.

Claim Rejections - 35 USC § 101

Claims 1-3 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. The terms automatically

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and mechanically do not provide enough specificity to ensure that the claimed method is in fact computer implemented.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,289,502 B1 to Garland et al. (Garland).**

Regarding Claim 1: Garland discloses a method for automatically generating software (col. 2, lines 7-10 'to generate code') in which the properties of an application made possible by the software are modeled in abstract form (col. 2, lines 25-28 'a design specification') and then mechanically converted into software for this application (col. 2, lines 32-35 'applying a code generating procedure'), while the execution of the application influences a technical system optionally made up of a plurality of systems (col. 3, lines 36-38 'a software implementation of that state machine'), characterized in that the following additional element is generated in a totally integrated (col. 8, lines 30-37 'library software can include ... software services ... that are provided by the hosting operating system') form from the modeled description of the application, together with

the application source code (col. 4, lines 55-61 'produce software in computer programming languages which can be ... compiled'), namely: software for simulating the application and/or the technical system (col. 3, lines 1-5 'applying a simulation procedure').

Regarding Claim 2: The rejection of claim 1 is incorporated; further, Garland discloses generating software for counter-simulating the technical system, which is influenced by the application (col. 3, lines 1-5 'a simulation procedure ... including determining a sequence of states of the state machine').

Regarding Claim 3: The rejection of claim 1 is incorporated; further Garland discloses the application is modeled by one or more modules (col. 7, lines 16-21 'a set of text files'), additional information (col. 7, lines 64-67 'data type definitions and library specifications') and possible instancing variables (col. 11, lines 31-33 'one example of use of a parameter of an automation is in determining the size of the automation'), wherein one module advantageously contains a partial problem of the application (col. 7, lines 19-21 'the specification of one component of the system'), the additional information contains information such as text, images, visualizers and type definitions to which reference is made within the modules (col. 7, lines 64-67 'data type definitions and library specifications'), and the instancing variables contain information which cannot be deposited directly in the module itself in the event of multiple instancing of the modules (col. 11, lines 35-37 'to identify instances of an automation') and which cannot be generated mechanically either (col. 15, line 66-col. 16, line 3 'user to provide explicit ... parameter values'). Garland does not explicitly disclose the data structure used to

store the parameter values, but tables are data structures that were well know in the art at the time of the invention and It would have been obvious to a person of ordinary skill in the art at the time of the invention to use tables to store the parameter values disclosed in Garland (col. 11, lines 31-37).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,289,502 B1 to Garland et al. (Garland) in view of 'Introducing Undergraduates to Object Orientation Using the Turing Language' by Holt (Holt).

Regarding Claim 4: The rejection of claim 3 is incorporated; further, Garland discloses a module is totally defined by the following sets of definitions: node definitions for distributing the application to physically separate hardware systems coupled by data technology (split systems) (col. 4, lines 15-19 'a specification of a desired relationship between the first plurality of state machines and the second plurality of state machines'), sub-module definitions for instancing (tying-in) sub-modules (col. 7, lines 64-67 'library specifications'), element definitions for combining all the data as well as hardware and communication inputs/outputs of module (col. 8, lines 5-9 'Data type definitions'). Garland does not disclose defining man-machine interface definitions but does disclose

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the use of library software provided by the hosting environment (col. 8, lines 46-49 'A library specification ... related to library software').

Holt teaches a man-machine interface (pg. 327, col. 2, sec. 6, par. 2 'a Graphical User Interface (GUI) Library') in an analogous art for the purpose of allowing programmatic incorporation of GUI support (pg. 327, col. 2, sec. 6, par. 2 'to allow them to incorporate GUI support ... as part of their programs').

It would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the GUI library taught by Holt (pg. 327, col. 2, sec. 6, par. 2) with the library specification disclosed in Garland (col. 8, lines 46-49) because one of ordinary skill in the art would have been motivated to provide GUI support as part of the program (pg. 327, col. 2, sec. 6, par. 2).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,831,580 to Yamada; US 4,536,840 to Borta; US 5,918,035 to Van Praet et al.; US 5,815,717 to Stack; US 6,408,431 B1 to Heughebaert et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kakali Chaki

Jason Mitchell
11/23/04

**KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**